I N S E C T P E S T S U R V E Y B U L L E T I N

Vol. 13 March 1, 1933 No. 1

COLLABORATORS ACTING AS REPORTERS FOR THE INSECT PEST SURVEY, 1933

Alabama	Dr. J. M. Robinson, Alabama Polytechnic Institute, Auburn
Arizona	Mr. C. D. Lebert, P. O. Box 2006, Phoenix
Arkansas	Dr. W. J. Baerg, University of Arkansas, Fayetteville Mr. Dwight Isely, University of Arkansas, Fayetteville
California	Dr. W. B. Herms, University of California, Berkeley Prof. E. O. Essig, University of California, Berkeley Mr. Stewart Lockwood, Bureau of Plant Quarantine and Control, Department of Agriculture, Sacramento Mr. H. S. Smith, Citrus Experiment Station, Riverside Dr. A. W. Morrill, 815 Hill Street, Los Angeles Mr. G. S. Hensill, University of California, Berkeley Mr. J. F. Laniman, University of California, Berkeley Mr. A. E. Michelbacher, University of California, Berkeley Mr. L. M. Smith, Deciduous Fruit Field Station, Route 1, Box 232, San Jose Mr. F. H. Wymore, College of Agriculture, Davis
Colorado	Dr. C. P. Gillette, State Agricultural College, Fort Collins Dr. Geo. M. List, State Agricultural College, Fort Collins
Connecticut	Dr. W. E. Britton, Agricultural Experiment Station, New Haven Dr. E. P. Felt, Bartlett Research Laboratory, Stamford
Delaware	Dr. L. A. Stearns, Agricultural Experiment Station, Newark
Florida	Dr. Wilmon Newell, Agricultural Experiment Station, Gainesville Dr. E. W. Berger, State Plant Board, Gainesville Mr. J. R. Watson, Agricultural Experiment Station, Gainesville Dr. H. T. Fernald, 707 East Concord Avenue, Orlando
Georgia	Mr. M. S. Yeomans, State Board of Entomology, Atlanta Mr. C. H. Alden, State Board of Entomology, Cornelia Mr. J. B. Gill, Box 444, Albany Mr. W. H. Clarke, Peach Experiment Station, Thomaston
Idaho	Prof. Claude Wakeland, University of Idaho, Moscow Mr. R. W. Haegele, Entomological Field Station, Parma
Illinois	Mr. W. P. Flint, State Natural History Survey, Urbana Dr. T. H. Frison, State Natural History Survey, Urbana

Indiana	Prof. J. J. Davis, Purdue University, Lafayette
Iowa	Dr. Carl J. Drake, Iowa State College, Ames Mr. H. E. Jaques, Iowa Wesleyan College, Mt. Pleasant
Kansas	Prof. Geo. A. Dean, Kansas State Agricultural College, Manhattan Dr. H. B. Hungerford, University of Kansas, Lawrence Prof. H. R. Bryson, Kansas State Agricultural College, Manhattan
Kentucky	Prof. W. A. Price, University of Kentucky, Lexington
Louisiana	Dr. W. E. Hinds, Louisiana State University, Baton Rouge
Maine	Dr. H. B. Peirson, State of Maine Forest Service, Augusta Dr. C. R. Phipps, Agricultural Experiment Station, Orono
Maryland	Dr. E. N. Cory, University of Maryland, College Park
Massachusetts	Mr. A. I. Bourne, Agricultural Experiment Station, Amherst
Michigan	Prof. R. H. Pettit, Michigan State College of Agriculture, East Lansing Mr. Ray Hutson, Michigan State College of Agriculture, East Lansing
Minnesota	Prof. A. G. Ruggles, University of Minnesota, University Farm, St. Paul Prof. A. A. Granovsky, University of Minnesota, University Farm, St. Paul
Mississippi	Mr. Clay Lyle, State Plant Board, State College
Missouri	Dr. L. Haseman, University of Missouri, Columbia Mr. K. C. Sullivan, Board of Agriculture, Jefferson City
Montana	Dr. A. L. Strand, Montana State College, Bozeman
Nebraska	Prof. M. H. Swenk, University of Nebraska, Lincoln Mr. Don B. Whelan, University of Nebraska, Lincoln Mr. L. M. Gates, Department of Agriculture, Lincoln
Nevada	Mr. G. G. Schweis, Div. of Plant Industry, Cladianos Bldg., Reno
New Hampshire	Mr. L. C. Glover, Agricultural Experiment Station, Durham

414752

New Jersey	Dr. T. J. Headlee, University of New Jersey, New Brunswick Mr. Harry B. Weiss, Chief, Bureau of Statistics and Inspection, Department of Agriculture, Trenton
New Mexico	Dr. J. R. Eyer, College of Agriculture, State College
New York	Prof. C. R. Crosby, Cornell University, Ithaca Dr. R. D. Glasgow, New York State Museum, Albany Mr. P. J. Parrott, Agricultural Experiment Station, Geneva Mr. P. J. Chapman, New York State Experiment Station, Geneva Prof. A. H. MacAndrews, Department of Forest Entomology, New York State College, Syracuse
North Carolina	Dr. Z. P. Metcalf, North Carolina State College, State College Station, Raleigh Dr. R. W. Leiby, Commission of Agriculture, Raleigh
North Dakota	Prof. J. A. Munro, North Dakota Agricultural College, State College Station, Fargo
Ohio	Mr. J. S. Houser, Agricultural Experiment Station, Wooster Dr. Herbert Osborn, Ohio State University, Columbus Prof. T. H. Parks, Ohio State University, Columbus Mr. E. W. Mendenhall, Ohio State Department of Agriculture, 97 Brighton Road, Columbus
Oklahoma	Prof. C. E. Sanborn, Oklahoma Agricultural and Mechanical College, Stillwater Mr. C. F. Stiles, Oklahoma Agricultural and Mechanical College, Stillwater
Oregon	Dr. Don C. Mote, Oregon State Agricultural College, Corvallis
Pennsylvania	Dr. T. L. Guyton, Bureau of Plant Industry, Harrisburg Prof. H. E. Hodgkiss, Pennsylvania State College, State College Mr. A. B. Champlain, Bureau of Plant Industry, Harrisburg Mr. H. B. Kirk, Bureau of Plant Industry, Harrisburg Mr. J. N. Knull, Forest Research Institute, Bureau of Plant Industry, Mont Alto Mr. J. R. Stear, c/o Koppers Experiment Farm, Ligonier Mr. C. A. Thomas, Pennsylvania State College, Kennett Square Mr. H. N. Worthley, Pennsylvania State College, State College
Rhode Island	Dr. A. E. Stene, State Department of Agriculture, Kingston

South Carolina	Prof. Franklin Sherman, Clemson College Mr. Alfred Lutken, Clemson College
South Dakota	Prof. H. C. Severin, South Dakota State College of Agriculture and Mechanic Arts, Brookings
Tennessee	Prof. G. M. Bentley, State Board of Agriculture, Knoxville
Texas	Dr. F. L. Thomas, Agricultural Experiment Station, College Station
Utah	Prof. G. F. Knowlton, Agricultural Experiment Station, Logan
Vermont	Mr. H. L. Bailey, State Department of Agriculture, Montpelier
Virginia	Dr. W. J. Schoene, Virginia Agricultural Experiment Station, Blacksburg Mr. C. R. Willey, Division of Plant Industry, 1112 State Office Building, Richmond Dr. H. G. Walker, Virginia Truck Experiment Station, Norfolk
Washington	Prof. R. L. Webster, State College of Washington, Pullman Mr. M. H. Hatch, University of Washington, Seattle
West Virginia	Prof. W. E. Rumsey, Agricultural Experiment Station, Morgantown Dr. L. M. Peairs, West Virginia University, Morgantown
Wisconsin	Mr. E. L. Chambers, State Department of Agriculture, Madison Dr. C. L. Fluke, University of Wisconsin, Madison
Wyoming	Mr. C. L. Corkins, Office of State Entomologist, Cheyenne
Costa Rica	Dr. C. H. Ballou, Apartado 1368, San Jose
Hawaii	Mr. O. H. Swezey, Hawaiian Sugar Planters' Association, Honolulu
Mexico	Dr. Alfonso Dampf, Avenida Insurgentes 171, San Jacinto, Mexico, D. F.
Porto Rico	Mr. G. N. Wolcott, Insular Experiment Station, Rio Piedras

THE MORE IMPORTANT RECORDS FOR JANUARY AND FEBRUARY, 1933

The winter for the most part has not been abnormally severe on most insects.

The grasshopper situation is much less alarming in the Western States than it was a year ago. North Dakota alone shows an increase in the number of eggs now in the ground over the number at this time in 1932.

Unusual numbers of white grubs are recorded in the Middle Atlantic States from Pennsylvania to Virginia, and also in Iowa, and will probably be destructively abundant in the latter State, where Brood A is due to appear this year.

Chinch bugs appear to have wintered successfully throughout the greater part of Illinois, westward through Missouri into Kansas and Oklahoma. The insect is also recorded in threatening numbers in isolated localities in Iowa.

Abundance of fruit aphids is reported from the New England States southward to Virginia as subnormal. A similar condition also prevails throughout the East Central and West Central States.

Citrus aphids appeared late in February in considerable numbers on young citrus trees in Florida.

The vegetable weevil did damage to a variety of truck crops in the Gulf district of Mississippi and Louisiana.

A large infestation of the gipsy moth has been located within 5 miles of the eastern border of the barrier zone in Connecticut.

An insect new to this country has been found attacking wisteria at Greenwich, Conn. It is Lecanium excrescens Ferris.

G E N E R A L F E E D E R S

GRASSHOPPERS (Acrididae)

North Dakota. J. A. Munro (February 17): The grasshopper situation remains unchanged. The heavy snowfall over the State has, I believe, rendered such protection that very few of the eggs will be injured by the cold.

South Dakota. H. C. Severin (February 20): Eggs of grasshoppers passed the winter in excellent condition. Bee fly larvae and meloid larvae are fairly abundant, but not abundant enough to make any material difference so far as grasshopper prospects for next spring are concerned. If weather conditions are favorable to grasshoppers in the spring and unfavorable to plant growth, we expect a large amount of grasshopper damage in South Dakota during the year. However, I do not believe that the damage will be so severe as it was in 1931.

Iowa. C. J. Drake (February 17): Grasshoppers are scarce. No serious outbreak is expected, although there will probably be a few small areas to treat.

Missouri. L. Haseman (February 22): With the favorable situation as regards grasshoppers last fall, coupled with wet, cold winter, hoppers are not threatening.

Colorado. G. M. List (February 24): Moderately abundant in localities in eastern Colorado.

New Hampshire. L. C. Glover (February 23): Mr. Conklin reported on January 30 that active nymphs of Chortophaga sp. were observed on a lawn.

Florida. J. R. Watson (February 20): Schistocerca americana Drury is moderately abundant at Gainesville and Lake Alfred.

WHITE GRUBS (Phyllophaga spp.)

Pennsylvania. H. E. Hodgkiss (February 28): White grubs have been found rather abundantly as pupae in the soil just above the plow line. Farmers have reported that they are turning large numbers of them up, and that where this is done birds are very abundant following the plow in the field.

West Virginia. L. M. Peairs (February 17): White grubs are reported numerous in soil in various sections.

Virginia. W. J. Schoene (February 18): Two complaints were received from Augusta County of severe injury to the sod by white grubs.

Iowa. C. J. Drake (February 17): White grubs are very abundant. Many serious reports of Brood A are expected.
H. E. Jaques (February 21): An unusual abundance of white grubs has been observed and reported by some of our farmers in digging holes for fence posts.

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Ohio. T. H. Parks (February 20): The only thing I have to report is the fact that the Hessian fly is very scarce in Ohio and that we have one of the lightest populations of this insect for many years. There is no indication that damage will occur anywhere in the State this summer.

Iowa. C. J. Drake (February 17): The Hessian fly is moderately abundant. Monona County represents the most heavily infested part of the State.

Missouri. L. Haseman (February 22): Most of the wheat area has many Hessian flies and winter has not been particularially hard on them.

CHINCH BUG (Blissus leucopterus Say)

Illinois. W. P. Flint (February 21): The chinch bug is present over all of the State with the exception of the extreme northern and southern ends. Recent counts show a very low winter mortality, better than 90 per cent of the bugs being alive at this time.

Iowa. C. J. Drake (February 17): The chinch bug is moderately abundant. It will probably do some damage--spotted--in 10 to 16 counties, in small areas. H. E. Jaques (February 21): Chinch bugs are apparently showing up in considerable abundance. During a warm spell just preceding our last freeze they were crawling about in last summer's heavily infested area in the southern part of Henry County in large numbers.

Missouri. L. Haseman (February 22): Two cold spells coming with sudden temperature drops and the more or less continuous wet weather are not favorable for the chinch bug.

Kansas. H. R. Bryson (February 23): More chinch bugs went into hibernation at Manhattan during the fall of 1932 than was the case the preceding year. Counts made to determine the number of bugs hibernating in the vicinity of Manhattan showed an average of 40 bugs to the bunch of native prairie grass, with a mortality of 5 per cent. The dryness of the winter in the State has been conducive thus far to the successful overwintering of the bugs.

Oklahoma. C. F. Stiles (March 1): Chinch bugs were quite numerous in bunch grass along the roadside in Pawnee County before the last cold snap, but I have not had time to make a survey since that time.

WHEAT JOINT WORM (Harmolita tritici Fitch)

Oregon. Monthly letter of the Bureau of Entomology, No. 224 (December 1932): T. R. Chamberlin, November, Forest Grove, Oreg., made an examination of the fall collection of wheat stubble from the sample farm in the Molalla district and found Harmolita tritici present in 28.2 per cent of the straws. The following parasites were also present in the percentage indicated; Ditropinotus aureoviridis Cwfd., 20.3 per cent; Eurytoma parva (Girault) Phillips, 48.2 per cent; Eupelmus allynii (French) and Eupelmimus saltator Lind., 1.8 per cent; Calosota metallica Gah., 0.5 per cent; undetermined parasites, 1 per cent; total parasitization, 71.8 per cent. *** examinations showed that 78 other Eurytoma had been destroyed by secondaries as follows: Ditropinotus, 56; E. allynii and E. saltator, 15; Calosota, 4; undetermined parasites, 3. The original parasitization of Eurytoma in the cells as counted in the fall was thus 52.9 per cent. It was also found that 118 other Harmolita had been destroyed by Eurytoma larvae which had entered more than one cell. The number of Harmolita originally present was, therefore, greater by 118 than was indicated by the fall count and the total destruction of Harmolita by Eurytoma was 56.1 per cent and by all parasites was 73.1 per cent. *** Comparing the parasitization in the fall collection from the sample field in 1932 with that in the corresponding collection in 1931, the total destruction of Harmolita by E. parva has increased from 45.2 to 56.1 per cent. *** By the middle of the month most of the H. tritici were still pupae, whereas in 1931 practically all had pupated by the first of the month."

CORN

CORN EAR WORM (Heliothis obsoleta Fab.)

Florida. J. R. Watson (February 20): Corn ear worms are working in beans a little on the lower east coast.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Connecticut. W. E. Britton (February 23): Very abundant in New London County; many larvae removed from stalks by birds. Moderately abundant in Middlesex County; larva survival O.K. in both counties.

OATS

THRIPS (Thysanoptera)

Florida. J. R. Watson (February 20): Aeolothrips bicolor Hinds and Frankliniella fusca Hinds are common on oats.

CLOVER

LADYBEETLES (Coccinellidae)

Oregon. D. C. Mote (February): B. G. Thompson reports on January 6 that he visited Peterson's Butte, near Corvallis, and found an unusually large cache of ladybird beetles. They appeared to be mostly Hippodamia convergens Guer., and seemed to have survived the cold weather in December in fine shape. More than 300 specimens were examined and only one was found dead.

Iowa. H. E. Jaques (February 21): Ceratomegilla fuscilabris Muls. is appearing in student collections in numbers that would indicate it to be quite abundant out of doors.

A LEAFHOPPER (Agallia sanguinolenta Prov.)

New Hampshire. L. C. Glover (February 23): (Notes from Mr. Conklin, January 16): A very warm day. The leafhopper Agallia sanguinolenta was found beneath the remains of flower plants and appeared quite active when disturbed.

ALFALFA

CLOVER LEAF WEEVIL (Hypera punctata Fab.)

California. A. E. Michelbacher (February 19): Throughout the winter a very few alfalfa weevil larvae have been collected from time to time at Pleasanton and Niles. However, the larvae of the clover leaf weevil were collected with considerable ease, and at the present time they are fairly numerous.

GRASS

RANGE CATERPILLAR (Hemileuca oliviae Ckll.)

New Mexico. O. L. Barnes, Monthly Letter of the Bureau of Entomology, No. 224 (December 1932): Range conditions in northeastern New Mexico were poor over

practically all the area observed, due principally to lack of rainfall during the summer and early fall. *** The entire range caterpillar area visited had been very closely grazed, grasses or other plants suitable for egg deposition were very scarce in many localities, and apparently the larvae of the range caterpillar had died in large numbers over a considerable portion of the area visited. *** Range caterpillar eggs could be found after a brief search at almost any point in the caterpillar territory, but eggs in concentrated quantities suitable for mass collecting were observed in only three general localities--near Greenville, in Union County; Mills, in Harding County; and Wagon Mound, in Mora County. Grama and other grasses were rather abundant and weather conditions had been more suitable in these areas. By far the best collecting area of all was located about 4 miles south of Wagon Mound. It was estimated at the laboratory that approximately 8,000,000 range caterpillar eggs were collected this season (for breeding the parasite Anastatus semiflavidus Gahan).

SUGARCANE

A WEEVIL (Anacentrinus subnudus Buchanan)

Louisiana. W. E. Hinds (February 21): The sugarcane root-stock weevils have been found abundantly in larval and pupal stages, especially in third-year stubble of POJ 213 cane at Baton Rouge.

SUGARCANE BORER (Diatraea saccharalis Fab.)

Louisiana. W. E. Hinds (February 21): The sugarcane borer larvae in hibernation had been reduced in numbers very greatly by rather unusually thorough burning off of the cane trash through the latter part of January and first week of February. The freeze in the second week of February increased the mortality decidedly among the larvae surviving at that time. Trichogramma minutum developing in Sitotroga eggs survived exposure to 17° F. and considerable numbers emerged thereafter. These specimens were laboratory material in two stages of development and were placed in the weather-apparatus shelter in the field before the temperature began to rise. The freeze delayed by about five days the emergence of wasps ready to emerge.

F R U I T I N S E C T S

APPLE

APHIDS (Aphiidae)

Vermont. H. L. Bailey (February 21): Aphis pomi DeG. is moderately abundant.

Connecticut. W. E. Britton (February 23): Fruit aphids are scarce in New Haven County.

New York. S. W. Harman (March 1): Fruit aphids are moderately abundant in western New York.

Pennsylvania. H. E. Hodgkiss (February 28): The eggs of the green apple aphid are not abundant in orchards as a whole, for which reason I am soon going to

be looking for rosy aphid eggs, which are usually found in the centersof the trees.

Virginia. W. J. Schoene (February 18): Eggs of apple aphids are difficult to find on fruit trees.

West Virginia. L. M. Peairs (February 23): Fruit aphids are reported at Morgantown--even distribution, moderately abundant.

Illinois. W. P. Flint (February 21): There is a great variation in the number of aphid eggs present in apple orchards in western Illinois, with only a moderate number of eggs in the central and southern part of the State.

Iowa. C. J. Drake (February 17): Fruit aphids are moderately abundant.

Missouri. L. Haseman (February 22): Aphid eggs are less abundant than usual but some varieties show plenty. Recent counts at Columbia show 40 per cent mortality of aphid eggs.

CODLING MOTH (Carpocapsa pomonella L.)

New York. S. W. Harman (March 1): The codling moth is from moderately to very abundant in western New York.

Georgia. C. H. Alden (February 22): The codling moth has been reported at Cornelia. There is a fair winter survival of hibernating larvae - no pupation yet.

Missouri. L. Haseman (February 22): A heavy crop of the codling moth is hibernating. The recent blizzard resulted in a mortality of 20 per cent above snow line at Columbia; below snow, no mortality.

Iowa. C. J. Drake (February 17): Codling moths are moderately abundant.

Idaho. R. W. Haegele (February 20): Codling moths are from moderately to very abundant in southwestern Idaho. They were apparently but little affected by winter.

Oregon. D. C. Mote (February): Codling moth larvae in cloth bands survived winter in good condition.

APPLE LACE BUG (Corythucha salicata Gibson)

Oregon. D. C. Mote (February): Thompson reports that the apple lace bug, C. salicata, has been found to be hibernating in thousands in the moss in a grove of oak trees adjacent to the Davidson apple orchard near Lebanon.

EASTERN TENT CATERPILLAR (Malacosoma americana Fab.)

Vermont. H. L. Bailey (February 21): Eastern tent caterpillar egg masses on apple and wild cherry are more abundant than they have been for many years. Observation in Orange County.

West Virginia. L. M. Peairs (February 23): Eastern tent caterpillar eggs are numerous and very abundant at Morgantown.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

New York. S. W. Harman (March 1): The San Jose scale is moderately abundant in western New York.

West Virginia. L. M. Peairs (February 23): The San Jose scale is moderately abundant at Morgantown.

Virginia. W. J. Schoene (February 18): We are searching for trees infested with the San Jose scale for testing out spray mixtures. Thus far we have not been able to locate any infested trees in the State. The scale seems to have practically disappeared from unsprayed trees.

North Carolina. Z. P. Metcalf (February 21): The San Jose scale is moderately abundant. It is apparently not so abundant as it has been in former years.

Georgia. O. I. Snapp (February 20): On February 9 the minimum thermometer at Fort Valley recorded 11.9° F. above zero. According to our data on the effect of cold weather on the San Jose scale, that temperature was sufficient to reduce materially the infestation on peach trees in this locality. Figures on the percentage of scale killed by the recent cold weather will be available early in March.
C. H. Alden (February 22): The San Jose scale is moderately abundant at Cornelia. There has been intermittant breeding throughout the winter months. Crawling young were observed in January.

Florida. J. R. Watson (February 20): The San Jose scale is moderately abundant in Gainesville.

Illinois. W. P. Flint (February 21): Low temperatures have killed probably 90 per cent of the peach buds and have had some effect in reducing the numbers of the San Jose scale, although actual counts have not been possible in many localities.

Wisconsin. E. L. Chambers (February 27): Since our last report was made on the San Jose scale, we are finding additional outbreaks in Jefferson, Waukesha, and Milwaukee Counties, indicating that this insect is spreading in Wisconsin aided by the hot, dry summer and the comparatively mild winter.

Iowa. C. J. Drake (February 17): The San Jose scale is moderately abundant. It is spreading to the southeastern part of the State, and was found in Des Moines and Ames last fall.

Missouri. L. Haseman (February 22): Recent counts of the San Jose scale at Columbia on Japanese quince show 86 per cent mortality of winter-stage nymphs.

Alabama. J. M. Robinson (February 17): The San Jose scale is moderately abundant at Auburn.

Mississippi. C. Lyle (February 21): A. perniciosus was found on Mahonia from Greenwood, October 31; on coral berry from Meridian, November 1; on Japanese quince and japonica from State College, November 10; and on Hypericum from Greenwood, October 31.

Louisiana. W. E. Hinds (February 21): The San Jose scale is plentiful on deciduous fruit trees in home orchards.

Idaho. R. W. Haegele (February 20): The San Jose scale is moderately to very abundant in southwestern Idaho. Very little winter mortality.

Utah. G. F. Knowlton (February 20): Eggs, only, of the San Jose scale in northern Utah.

California. E. O. Essig (February 20): The San Jose scale is moderately abundant in a few orchards.

COMMON RED SPIDER (Tetranychus telarius L.)

Pennsylvania. H. E. Hodgkiss (February 28): Red spider eggs are not so abundant as last year and we do not look for serious infestations except in occasional orchards.

PEAR

PEAR PSYLLA (Psyllia pyricola Foerst.)

New York. S. W. Harman (March 1): The pear psylla is moderately abundant in western New York.

PEAR THRIPS (Taeniothrips inconsequens Uzel)

California. F. H. Wymore (February 21): Dr. S. F. Bailey reports that the pear thrips, or prune thrips, was collected for the first time this spring on February 15 in the Healdsburg section, and on February 17 in the San Jose section.

PLUM

A THRIPS (Leptothrips mali Fitch)

California. L. M. Smith (February 27): L. mali, a large, black, predacious thrips, was found in considerable numbers, apparently hibernating, under old shells of the brown apricot scale, Lecanium corni Bouche, on French prune trees at Linden, on February 22. The maximum occurrence was eight thrips under a single scale. The present winter has been abnormally cold, but apparently has not reduced the survival of this beneficial thrips.

PACIFIC RED SPIDER (Tetranychus pacificus McG.)

California. L. M. Smith (February 27): Considerable numbers of T. pacificus were discovered hibernating under old shells of the brown apricot scale, L. corni, on French prune trees at Linden, on February 21. The maximum occurrence was 21 spiders under a single scale.

RASPBERRY

RED-NECKED CANE BORER (Agrilus ruficollis Fab.)

Wisconsin. E. L. Chambers (February 27): An item which may be of interest is

the finding of the red-necked cane borer showing up in our packing house inspections of raspberry plants, incidating that this insect was quite prevalent and that some of the fields which were certified as having only a trace earlier in the summer when they were inspected developed to have heavier infestations during the late fall, and consequently a special notice was sent out to all the nurserymen calling their attention to the pest and reminding them that it would be necessary to sort these out carefully and carry on the control measures recommended.

A MARCH FLY (Bibio albipennis Say)

New York. C. R. Crosby (November 12): This insect is abundant around raspberry plants. Many larvae were received.

RASPBERRY ROOT BORER (Bembecia marginata Harr.)

West Virginia. L. M. Peairs (February 17): The raspberry root borer is reported bad in a planting in Marion County.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

California. E. O. Essig (February 20): Hibernating adults of the grape leafhopper were reported abundant in vineyards at Vernalis by W. G. Scott, February 15.

PECAN

PECAN WEEVILS (Balaninus caryae Horn)

South Carolina. A. Lutken (February 25): Pecan weevils, B. caryae, have been very prevalent throughout the State.

OBSCURE SCALE (Chrysomphalus obscurus Comst.)

Mississippi. C. Lyle (February 21): C. obscurus on pecan from Pass Christian, January 9.

CITRUS

CITRUS APHID (Aphis spiraecola Patch)

Florida. J. R. Watson (February 20): The citrus aphid is considerably in evidence on young trees, and indications are that if the weather remains comparatively cool with sufficient rain to stimulate growth, and in the absence of heavy, dashing rains, this infestation may be quite heavy by March.

MEXICAN FRUIT FLY (Anastrepha ludens Loew)

Mexico. News Letter, Bureau of Plant Quarantine, No. 25 (January 1): Three adult flies were taken Dec. 9 in the traps operated on the premises in Matamoros on which a number of flies were taken last month. No other flies were taken in the 205 traps operated on the 74 other premises on which traps were operated. The fruit arriving in Matamoros from the interior of Mexico

has shown a very light degree of infestation during the past two months. It will be recalled that no infested fruit was recovered in October, that being the first month to elapse with no infested imported fruit being recovered since a full-time inspector was assigned to Matamoros in 1929. Only four imported oranges were found infested during November. Eight larvae were taken from these oranges, which originated in Montemorelos, in the State of Nueva Leon. Whether the absence of infested fruit in Matamoros is the result of climatic conditions at the points of origin, control measures carried out by the growers, or closer culling at the time of shipment, is not known. The four infested oranges were contained in shipments of four cars of bulk oranges from Montemorelos. (No. 26 February 1): Four carloads of oranges, in bulk, were received in Matamoros during January from Montemorelos. Some 6,000 of these fruits which had spoiled were taken up from the various stands throughout the city. Examination showed 22 of them to be infested with larvae of the fruit fly. Sixty-seven larvae were recovered. Oranges were retailing during the month at 1 cent (Mexican) each, or about one-third of a cent American money. As a result of the low prices, oranges were scattered all over the city with a corresponding danger of the establishment of a local infestation. The second application of nicotine-molasses bait spray to the trees of Matamoros was completed on the 24th. While no A. ludens have been taken in the traps in Matamoros since the first application of the bait was completed, 10 A. pallens were taken during December.

RED SCALE (Chrysomphalus aurantii Mask.)

California. H. J. Ryan (February 23): The red scale shows a winter mortality of about 50 per cent. This is a more normal condition than was reported a year ago, when the mortality was unusually high.

FLORIDA RED SCALE (Chrysomphalus aonidum L.)

Florida. J. R. Watson (February 20): The Florida red scale is moderately abundant.

Mississippi. C. Lyle (February 21): C. aonidum on grass and cactus from Hattiesburg, January 17.

CITRUS BLACKFLY (Aleurocanthus woglumi Ashby)

Canal Zone. James Zetek, Monthly Letter of Bur. of Ent., U.S.D.A., No. 224 (December): Adults of Eretmocerus serius Silv. were liberated September last year at Fort Amador, at a place near Juan Diaz, and at a place called La Sabanilla, near Juan Diaz. *** At Fort Amador the limes are fairly clean of Woglumi. The same was true at Ucros place, beyond Juan Diaz. At La Sabanilla, where the citrus trees were in an abandoned state and heavily infested, I was almost unable to get any woglumi, and such leaves as I did get had the exit holes of the parasite. Live parasites were seen at all three places.

CITRUS WHITEFLY (Dialeurodes citri Riley & How.)

Florida. J. R. Watson (February 20): The citrus whitefly is moderately abundant at Gainesville and Lake Alfred. It is not parasitized by entomogenous fungi as it was last year at this time, although fungi are in evidence.

Mississippi. C. Lyle (February 21): A rather heavy infestation of D. citri on cape jasmine was reported from McComb on December 2, 1932, and on Camellia from Bay St. Louis on January 2, 1933.

Louisiana. W. E. Hinds (February 21): Citrus foliage has shed considerably since the freeze and this will probably reduce the citrus white fly survival materially.

CITROPHILUS MEALYBUG (Pseudococcus gahani Green)

California. H. J. Ryan (February 23): Citrophilus mealybug control by the Australian parasites Coccophagus gurneyi Comp. and Tetracnemus pretiosus Timb. has continued to be particularly effective. This mealybug is no longer considered a pest of major importance.

CITRUS RUST MITE (Phyllocoptes oleivorus Ashm.)

Florida. J. R. Watson (February 20): The citrus rust mite is moderately abundant at Lake Alfred, rather more so than usual for this time of year.

CITRUS RED SPIDER (Paratetranychus citri McGregor)

California. H. J. Ryan (February 23): The red spider, P. citri, was exceptionally severe in 1932 and is carrying over in sufficient numbers to warrant the prediction that infestation will again be heavy in 1933.

FIG

RAISIN MOTH (Ephestia figulilella Greg.)

California. Monthly Letter of Bureau of Entomology, U.S.D.A., No. 224 (December): The work of Dwight F. Barnes in fig orchards and drying yards near Fresno during the past season has just been summarized by Perez Simmons, who estimates that during the past season fig growers lost about $216,000 in actual cash, mostly as a result of deductions because of infestations by the raisin moth. It is believed that a large part of this loss can be prevented by the use of shade cloths in drying yards.

DATE

PARLATORIA DATE SCALE (Parlatoria blanchardi Targ.)

California. News Letter, Bureau of Plant Quarantine, No. 26, (February 1): No infestations were found outside the areas already known to be infested. In the date-growing areas 301,072 palm inspections were made, and in outside areas 11,610. Four infested date palms were found. One of the 4 palms was found in Arizona, near Phoenix. It had been found infested previously and treated but obviously some live scale remained. The palm was dug out and destroyed. The remaining 3 were found in the Imperial Valley in California. One of the 3 showed live scale and was defoliated and sprayed. Only single dead scales were found on the others and they were not treated. No scale was found during the year in the Coachella Valley, the principal date-growing area. In the Imperial Valley in California an inspection was made of ornamental palms other than date, and 33 Canary Island and 4 fan palms were found infested. These were defoliated and sprayed. Four of the Canary Island palms showed a recurrence due to the fact that scale had penetrated and settled on unexpanded leaves in the bud where they were protected from the spray. These palms were cut back again and sprayed.

TRUCK-CROP INSECTS

VEGETABLE WEEVIL (Listroderes obliquus Gyll.)

Mississippi. C. Lyle (February 21): Beginning on November 19, 1932, when we received the first specimens of the vegetable weevil since early summer, this insect has attracted more attention in Mississippi during the fall and winter months than any other species. Serious damage to turnips and mustard has been reported from many localities in the southern three-fourths of the State throughout the winter, while cabbage, spinach, carrots, and other vegetables have been severely damaged at various places in southern Mississippi during the past few weeks. On February 1 a number of adult specimens of D. duodecimpunctata were collected from a garden in Laurel, Jones County. Some larvae of the vegetable weevil were sent at the same time. The correspondent indicated that severe injury had been caused to cabbage, turnip greens, beets, and spinach, most of which had undoubtedly been caused by the weevil, but possibly some by the cucumber beetles.

Louisiana. W. E. Hinds (February 21): The vegetable weevil is now distributed throughout Louisiana and had appeared in destructive numbers on a variety of crops before the occurrence of the freeze.

BANDED CUCUMBER BEETLE (Diabrotica balteata Lec.)

Florida. J. R. Watson (February 20): D. balteata is in evidence occasionally. It is quite prevalent on oats about Gainesville at the present time, but is not abundant enough to do any material damage.

Alabama. J. M. Robinson (February 17): The belted bean beetle has been reported on vegetables at Dothan and Auburn.

SPOTTED CUCUMBER BEETLE (Diabrotica duodecimpunctata Fab.)

Virginia. H. G. Walker (February 28): A twelve-spotted cucumber beetle was found feeding in the field on collards on January 4.

Arkansas. D. Isely (January 18): Twelve-spotted cucumber beetles were found in considerable abundance on vetch on the experiment station farm near Fayetteville by H. H. Schwardt.

Alabama. J. M. Robinson (February 17): Spotted cucumber beetles were very abundant at Dothan on vegetables in January.

A MOLE CRICKET (Gryllotalpa sp.)

North Carolina. W. A. Thomas - Monthly Letter of the Bureau of Entomology, U.S.D.A., No. 224 (December 1932): Mole crickets (Gryllotalpa sp.) caged on moist sand without food have continued active for as long as 63 days. There is no noticeable growth during this period, but a gradual shrinking of the body, especially in the abdominal region.

Alabama. J. M. Robinson (February 17): Mole crickets have been reported on vegetables at Jasper.

Mississippi. C. Lyle (February 21): Complaints of injury by mole crickets in gardens have been received from Biloxi and Gulfport, Harrison County.

FIELD CRICKET (Gryllus assimilis Fab.)

California. F. H. Wymore (February 21): A few specimens of the field cricket in the vicinity of Davis have reached maturity.

SEED CORN MAGGOT (Hylemyia cilicrura Rond.)

Iowa. C. J. Drake (February 17): The seed corn maggot is very abundant, also a pest of onions.

Mississippi. C. Lyle (February 21): A correspondent at Perkinston, Stone County, sent to us on November 22, 1932, specimens of H. cilicrura with the information that these insects had apparently destroyed a first planting of turnip seed and seriously injured the second.

GREEN PEACH APHID (Myzus persicae Sulz.)

Virginia. H. G. Walker (February 28): In general, insects have been rather scarce during the past winter. The spinach aphid, M. persicae, has been unusually scarce.

FALSE CHINCH BUG (Nysius ericae Schill.)

South Carolina. A. Lutken (February 25): False chinch bugs were very destructive to turnips and related plants during the early winter.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

West Virginia. L. M. Peairs (February 23): A goodly percentage of the Mexican bean beetle was reported alive in cages.

PEAS

PEA WEEVIL (Bruchus pisorum L.)

Alabama. J. M. Robinson (February 17): Pea weevils have been reported on peas at Parrish.

Oregon. Monthly Letter of the Bureau of Entomology, U.S.D.A., No. 224 (December, 1932): Pea weevil attacks all varieties of peas.--A. L. Larson, Corvallis, reports that "part of the time has been occupied in counting the number of weevil (B. pisorum) stings in 73 varieties and strains of peas grown on the Oregon Experiment Station plots. *** Some peas had as many as 17 entrance holes and one lot had 853 entrance holes in 100 peas. All here heavily infested; 35 of these varieties and strains have been examined from the crops of 1930, 1931, and 1932. *** These peas were

grown in adjoining plots each year and were exposed to pea weevil attack as uniformly as possible. Although all varieties were not uniformly attacked in any year, there seems to have been no consistent choice each year."

CABBAGE

CABBAGE WORMS

Florida. J. R. Watson (February 20): Cabbage worms, which were so injurious last year, have been conspicuous by their absence this winter.

Louisiana. W. E. Hinds (February 21): Eggs of the cabbage butterfly (Ascia rapae L.) and cabbage looper (Autographa brassicae L.) were quite common before the freeze but practically disappeared from the plants thereafter.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Virginia. H. G. Walker (February 28): Harlequin bugs were collected on January 4 and at other times during the winter, hibernating under leaves in the edge of a woods which bordered a collard field that had been heavily infested with this insect.

CABBAGE APHID (Brevicoryne brassicae L.)

Virginia. H. G. Walker (February 28): The cabbage aphid has been unusually scarce. Small infestations can be found in old cabbage fields at the present time.

Alabama. J. M. Robinson (February 17): Reported on cabbage and collards at Tuscaloosa.

CARROTS

CARROT RUST FLY (Psila rosae Fab.)

New York. C. R. Crosby (December 31): Infested carrots received, with the report that it"has been destructive in many gardens."

TURNIP

STRIPED FLEA BEETLE (Phyllotreta vittata Fab.)

Louisiana. W. E. Hinds (February 21): Turnip flea beetles have been moderately abundant but apparently were reduced in numbers by the freeze.

ONIONS

ONION THRIPS (Thrips tabaci Lind.)

Florida. J. R. Watson (February 20): T. tabaci is much in evidence on onions in Pinellas County.

Mississippi. C. Lyle (February 21): Onion plants showing injury by Thrips tabaci were received from Pascagoula, Jackson County, on January 3.

RADISH

FUNGUS GNATS (Sciaridae)

Ohio. J. S. Houser (February): There have been severe losses by sciarid larvae to radishes grown in greenhouses, at Toledo, in which soil had been steam-sterilized. Probably introduced in manure.

STRAWBERRY

STRAWBERRY PANERA (Orthaea vincta Say)

Florida. J. R. Watson (February 20): The strawberry panera, which was so destructive last winter, has been giving trouble only in the southern part of the State around Plant City, but they're not nearly so bad as last year. On the other hand, we have not had the foggy mornings that we had last winter, with the result that the entomogenous fungi have not been nearly so much in evidence. In other words, they have been about as dormant as usual in the winter time.

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

New York. S. W. Harman (March 1): The strawberry root weevil is moderately abundant in western New York.

BEETS

BEET LEAFHOOPER (Eutettix tenellus Bak.)

Idaho. R. W. Haegele (February 20): Weather conditions in southwestern Idaho in December probably increased greatly the winter mortality of the beet leafhopper. With the ground practically bare of snow cover and temperatures ranging from--10° F. to--15° F., overwintering conditions were extremely unfavorable. Absence of snow with lower temperatures in southern Idaho during December made overwintering conditions unfavorable there also. During February, 1933, temperatures dropped to--15° to-25° F. with a 6 to 8 inch covering of snow on the ground. Definite information regarding winter mortality will be available in March from Dr. P. W. Annand of the Bureau.

Utah. G. F. Knowlton (February 20): Beet leafhoppers are in hibernation in northern Utah.

TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

North Carolina. Z. P. Metcalf (February 21): The tobacco flea beetle is apparently abundant, having survived the winter in goodly numbers.

FOREST AND SHADE-TREE INSECTS

BROWN-TAIL MOTH (Nygmia phaeorrhoea Don.)

New England. Monthly News Letter, Bureau of Plant Quarantine, No. 26 (February 1): The following information has been prepared from a survey of the brown-tail moth records at the Greenfield office. In general, the brown-tail moth infestation in New England during 1932 was somewhat lighter than during the previous year. This is based on field observations made during the summer months and on the number of hibernating webs cut from the trees during the winter. A summation of the records at the office shows that from 1922 to and including the spring of 1932 there were over 10,000,000 webs cut from trees in Massachusetts, New Hampshire, and Maine. Records are available for towns in Massachusetts from 1922, but in New Hampshire they begin with 1930, and for Maine with 1931. In 1930, a total of 1,183,379 webs were cut, 689,684 of which were in Massachusetts, and 493,695 in New Hampshire. In 1931, a total of 1,656,045 webs were cut as follows: Massachusetts, 661,613; New Hampshire, 652,768; and Maine, 341,664. In 1932 the total number of webs cut was 896,469 as follows: Massachusetts, 314,919; New Hampshire, 513,760; and Maine, 67,790. There were, of course, other webs cut by individuals, of which we have no record. In Massachusetts the webs are cut annually by the local moth superintendents, and this is generally done quite thoroughly. In New Hampshire and Maine the work is done by the State organizations and by towns in a few cases when advised to do so by the State officials. During 1932 the infestation was scattering and light in the eastern half of Massachusetts except for heavy infestation in southeastern and northeastern parts of the State. In New Hampshire, the southeastern section, along the New Hampshire and Maine State lines, the Atlantic Ocean, and west to and including the Merrimac Valley as far north as Lake Winnipesaukee, was rather heavily infested, and light infestations were found as far north as Bartlett, Conway, and Albany. The infestation in Maine was general and heavy in spots throughout the southwestern section including the area from Lewiston and Auburn directly south to the Atlantic Ocean and westerly from Lewiston and Auburn through Poland, Casco, and Sebago to the New Hampshire State line. Infestation was observed as far easterly as Castine on the Penobscot River, where 7,000 webs were cut.

New Hampshire. L. C. Glover (February 23): Notes from Mr. Conklin - Two local outbreaks of brown-tail moths have been reported by Mr. Osgood. One is in Laconia and the other in Alton, from Alton to Alton Bay.

GYPSY MOTH (Porthetria dispar L.)

Maine. News Letter, Bureau of Plant Quarantine, No. 26 (February 1): Two gipsy moth egg clusters were found on spruce wreath material at Woburn, Mass. The spruce branches originated in southern Maine and were inspected at Woburn prior to being made up into finished wreaths that were to be shipped to New York City. This is the first record for several years of egg clusters being found on materials which were to be used in the manufacture of wreaths.

New Hampshire. News Letter, Bureau of Plant Quarantine, No. 25 (January 1): Mr. McNerney reports the finding of a gipsy moth egg mass on a crate of rough slabs containing laurel wreaths. Five such crates were moving to Boston from a point in the infested area in New Hampshire.

Connecticut. News Letter, Bureau of Plant Quarantine (February 1): A report has been received from the State of Connecticut indicating that the State force have discovered a large gipsy moth infestation in woodland in the town of Wolcott. They have already treated over 4,500 egg clusters in an area of about a square mile and a large amount of additional work will have to be done before work is completed there. The presence of so large an infestation within 5 miles of the eastern border of the barrier zone might prove to be serious had it not been discovered, for there would be considerable danger of the small gipsy moth caterpillars drifting into the barrier zone during the spring if the wind were blowing in a westerly direction. As no Federal funds are available for work east of the barrier zone and as there are not sufficient State or town funds appropriated to do a great deal of woodland scouting, there is no means of knowing whether or not similar infestations exist in other localities near the eastern border of the barrier zone.

SPRING CANKER WORM (Paleacrita vernata Peck)

Kansas. H. B. Hungerford (February 20): The spring canker worms are abundant at Lawrence and were emerging in January.

Missouri. L. Haseman (February 22): A canker worm male moth was taken at Columbia late in January and male and female moths the first week in February in the Kansas City and St. Joseph areas.

FALL CANKER WORM (Alsophila pometaria Harr.)

New York. E. P. Felt (February 21): Fall canker worm eggs are very abundant on Long Island and there is likely to be considerable defoliation.

Kansas. H. B. Hungerford (February 20): The fall canker worms are abundant at Lawrence. They were emerging in December.
H. R. Bryson (February 23): Emergence of the fall canker worms began about the first of January and continued throughout the month. The peak of the emergence of this brood occurred January 31. The spring brood began to emerge the last week in January, but, to date, has not reached the height of its emergence.

RESPLENDENT SHIELD BEARER (Coptodisca splendoriferella Clem.)

New York. E. P. Felt (February 21): The resplendent shield bearer, C. splendoriferella is somewhat abundant on Long Island, though not sufficiently numerous to cause material injury.

BIRCH

BRONZE BIRCH BORER (Agrilus anxius Gory)

New England and New York. E. P. Felt (February 21): The bronze birch borer occurs in a magnificent row of white birch at Glen Cove, Long Island,

several of the trees being badly infested. This insect is rather common on ornamental birches in both New England and New York State.

DOGWOOD

PECAN SESIA (Sesia scitula Harris)

Virginia. O. I. Snapp (February 11): This insect is reported to be causing considerable damage to dogwood in and near Roanoke. (Det. by E.A.Smyth.)

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

New York. E. P. Felt (February 21): The elm leaf beetles were found in mid winter in some numbers in a fireplace at Mamaroneck. Apparently the species is wintering successfully in large numbers.

New Jersey. A. Murray, jr. (February 15): I am the owner of a clapboarded frame house 44 years old located in Little Falls. About 10 years ago we noticed that every morning in the garret there were numerous bugs lying about on the floor. They were swept up every day but the quantity was not enough to be especially noticeable. Last fall a new tenant complained of the quantity of this same kind of bug that seemed to appear during the night and lay scattered all over the house in the morning. From conversations with the tenants they explained that you could sweep under any of the baseboards, where there were spaces between the baseboard and the floor, and find some of these bugs. (Det. E. A. Back.)

FIR

AN APHID (Dreyfusia picea Ratz.)

Maine. H. B. Peirson (October 8, 1932): Large area of fir affected in town of Brighton by the fir bark louse, D. picea. Outbreak appears to be following up a river valley. Trees up to 12 inches in diameter are being killed.

HICKORY

HICKORY BARK BEETLE (Scolytus quadrispinosus Say)

New York. E. P. Felt (February 21): Locally abundant at Great Neck, Long Island, infested trees in mid winter containing literally thousands of vigorous grubs.

LARCH

LARCH CASE BEARER (Coleophora laricella Hbn.)

Massachusetts and Connecticut. E. P. Felt (February 21): The larch case bearer is abundant and wintering successfully at Wellesley, Mass., and Stamford, Conn. It presumably will be decidedly injurious over much of New England the coming season.

JUNIPER

A SCALE INSECT (Lepidosaphes newsteadi Sulc.)

Mississippi. C. Lyle (February 21): L. newsteadi on juniper from Moorhead, October 29. (Det. A. L. Hutchins.)

JUNIPER WEBWORM (Dichomeris marginellus Fab.)

Pennsylvania. E. P. Felt (February 21): The juniper webworm is locally abundant and injurious and apparently wintering successfully in the Philadelphia area.

SOUTHERN PINE BEETLE (Dendroctonus frontalis Zimm.)

Pennsylvania. J. N. Knull (February 9): Several small infestations of the southern pine beetle have been observed in the vicinity of Mont Alto this year. The insects were found in trees which have been making slow growth for the last three years. Infestations were also observed on Martin's Hill and Wills Mountain, Bedford County. On Martin's Hill the insect was found at an elevation of approximately 2,900 feet.

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Massachusetts and Connecticut. E. P. Felt (February 21): European pine shoot moth larvae are wintering successfully and have been noted rather commonly at Wellesley, Mass., and Stamford, Conn.

SYCAMORE

SYCAMORE LACEBUG (Corythucha ciliata Say)

Iowa. H. E. Jaques (February 21): Sycamore lacebugs are coming in in the student collections in numbers that would indicate them to be quite abundant out of doors.

TULIP TREE

A PYRALID MOTH (Euzophera ostricolorella Hlst.)

Pennsylvania. E. P. Felt (February 21): The tulip tree bark borer, E. ostricolorella, is somewhat abundant and injurious in the Philadelphia area.

TULIP TREE SCALE (Toumeyella liriodendri Gmel.)

Connecticut. E. P. Felt (February 21): The tulip tree scale, T. tulipiferae, young are abundant and wintering successfully in the Stamford area.

WALNUT

A MAGGOT (Rhagoletis suavis completa Cresson)

California. K. L. Wolff for H. J. Ryan (February 23): The walnut husk-fly R. suavis completa Cresson: New infestations were found in October, 1932, in two orchards near Puente. This is 5 miles west of the nearest infestation previously known.

INSECTS AFFECTING GREENHOUSE AND ORNAMENTAL PLANTS

COMMON RED SPIDER (Tetranychus telarius L.)

West Virginia. L. M. Peairs (February 23): There have been many reports of the greenhouse red spider, at Morgantown and other places.

Mississippi. C. Lyle (February 21): Arborvitae twigs showing infestations of red spiders or injury evidently caused by them were received during November, December, and January, from various localities in the State.

CYCLAMEN MITE (Tarsonemus pallidus Bks.)

Maryland. E. N. Cory (January & February): Cyclamen mite on Crassula rubicunda from Catonsville.

Ohio. E. W. Mendenhall (November 8): The African violets in one of the greenhouses in Urbana are badly infested with cyclamen mites. I would say 200 plants are apparently infested.

LATANIA SCALE (Aspidiotus lataniae Sign.)

Mississippi. C. Lyle (February 21): A. lataniae was found on coral berry in Greenwood, October 31, and on Spiraea thunbergi from Moss Point, February 11.

AZALEA LACEBUG (Stephanitis pyrioides Scott)

New England. E. P. Felt (February 21): The azalea lacebug, S. pyrioides, eggs were received in mid winter and are in excellent condition. The insect is moderately abundant in southern Westchester County and southwestern New England.

TERMITES, OR WHITE ANTS (Reticulitermes spp.)

Ohio. E. W. Mendenhall (January 20): The subterranean termites are quite bad in some of the greenhouses at Dayton, and are doing considerable damage to plants such as chrysanthemum and geraniums.

A PILLBUG (Armadillidium vulgare Lat.)

California. E. O. Essig (February 20): Common pillbugs have been abundant in the ornamental and commercial gardens of the San Francisco Bay district this winter. Considerable damage is done to certain tender plants.

JAPANESE MAPLE SCALE (Leucaspis japonica Ckll.)

New England & New York. E. P. Felt (February 21): This Japanese scale insect is abundant in southwestern New England; and is somewhat common on Norway maples at Freeport, L. I., N. Y., and is also abundant in southern Westchester County.

GREENHOUSE CENTIPEDE (Scutigerella immaculata Newp.)

California. A. E. Michelbacher (February 19): The garden centipede continued to do some damage during the winter to greenhouse plants in the San Francisco Bay district. The plants most severely attacked were sweet peas and snapdragons.

ALTHEA

COTTON APHID (Aphis gossypii Glov.)

Mississippi. C. Lyle (February 21): Specimens of A. gossypii collected from althea were received from Pass Christian, Harrison County, on January 17. The aphids were heavily parasitized.

A STINK BUG (Corizus sidae Fab.)

Alabama. J. M. Robinson (February 17): C. sidae reported at Eufaula on althea.

A STINK BUG (Corizus hyalinus Fab.)

Mississippi. C. Lyle (February 21): On October 31 specimens of C. hyalinus were sent to us from Yazoo City, with a report that they were injuring althea seed pods.

ARBORVITAE

ARBORVITAE LEAF MINER (Argyresthia thuiella Pack.)

Pennsylvania. J. N. Knull (February 5): The arborvitae leaf miner is abundant on trees planted for a wind break at Mont Alto.

ASTER

A PYRALID MOTH (Homoeosoma mucidellum Ragonot)

California. H. J. Ryan (February 23): Larvae of this moth were found in September, 1932, working seed heads of asters, causing the total destruction of some heads and a seed-crop loss estimated at 50 per cent in one of the three localities where found in Los Angeles County.

BOXWOOD

BOXWOOD LEAF MINER (Monarthropalpus buxi Labou.)

Connecticut. E. P. Felt (February 21): The box leaf miner was reported as numerous at Southport, the maggots being healthy in mid winter.

Maryland. E. N. Cory (January and February): Specimens of the boxwood leaf miner were received from Baltimore.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

North Carolina. Z. P. Metcalf (February 21): The euonymus scale is apparently more abundant than in former years.

Mississippi. C. Lyle (February 21): C. euonymi on Euonymus from Hazlehurst, October 17; from Sanatorium, November 19; and from Indianola, November 22. It was also found in Hazlehurst, January 29.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips gladioli M. & S.)

Florida. J. R. Watson (February 20): There is a sprinkling of the gladiolus thrips in several infested properties, but the infestation is not heavy as yet in any place. Evidently this thrips goes through the summer in Florida in only small numbers and breeds rather slowly during the fall and winter. In addition to this thrips, four others are found feeding on the leaves of the gladiolus in the vicinity of Winter Haven: Haplothrips gowdeyi Hood, Echinothrips americanus Morgan, Frankliniella insularis Franklin, and Thrips tabaci Lind., the latter only in the immediate neighborhood of onion fields. This is the first time that E. americanus has been present in gladiolus in Pinellas County. T. tabaci is much in evidence on onions.

Ohio. J. S. Houser (February): Gladiolus corms stored in a warm basement were swarming with thrips while those stored in a cool storage showed very little development during the winter.

RHODODENDRON

RHODODENDRON LACEBUG (Stephanitis rhododendri How.)

New England. E. P. Felt (February 21): The rhododendron lacebug is somewhat common in southern New England, there being enough eggs so that an average to somewhat severe infestation may be expected the coming season; it is also common on Long Island, N. Y., and an average to somewhat severe infestation may also be expected the coming season.

WISTARIA

A SCALE INSECT (Lecanium excrescens Ferris)

Connecticut. E. P. Felt (February 21): L. excrescens was recently found on wistaria at Greenwich. It has not heretofore been recorded from this country. (Det. H. Morrison.)

I N S E C T S A T T A C K I N G M A N A N D D O M E S T I C A N I M A L S

MAN

BOXELDER BUG (Leptocoris trivittatus Say)

Illinois. W. P. Flint (February 21): Boxelder bugs have continued to be annoying throughout the entire winter.

Indiana. J. J. Davis (February 22): I might say that the boxelder bug has been annoying off and on in homes throughout the winter.

HEAD LOUSE (Pediculus humanus humanus L.)

Maryland. P. D. Sanders (February 11): A nurse in a Baltimore hospital became infested with headlice while nursing an infested patient in the hospital. The infestation was carried into the Nurses' Home where other nurses became infested.

H O U S E H O L D A N D S T O R E D - P R O D U C T S

I N S E C T S

ANGOUMOIS GRAIN MOTH (Sitotroga cerealella Oliv.)
SQUARE-NECKED GRAIN BEETLE (Cathartus quadricollis Guer.)

Pennsylvania. H. E. Hodgkiss (February 29): The angoumis grain moth caused considerable damage to corn, especially corn in the cribs, and in our southern counties this was accompanied by the square-necked grain beetle.

A SPIDER BEETLE (Ptinus tectus Boield.)

Washington. M. H. Hatch (February 6): P. tectus occurred in numbers about bags of imported fertilizer and other dried animal products in a warehouse on the Seattle waterfront during October 1932. Not reported before, to my knowledge from N. A. (Det.K. G. Blair.)

HAIRY SPIDER BEETLE (Ptinus villiger Reit.)

North Dakota. J. A. Munro (February 10): This week I received letters from two farmers at St. John, reporting the presence of a pest in their stored wheat. I have examined samples of the injured wheat and the insects and find that they are the spider beetle P. villiger.

SOUTHERN COWPEA WEEVIL (Callosobruchus maculatus Fab.)

Mississippi. C. Lyle (February 21): Samples of stored peas sent in by State Plant Board inspectors during December and January indicated that Bruchus quadrimaculatus was quite abundant in most localities.

RICE WEEVIL (Sitophilus oryzae L.)

Alabama. J. M. Robinson (February 17): The rice weevil was reported in corn at Clayton, Elba, and Troy.

TERMITES (Reticulitermes spp.)

United States. T. E. Snyder (January): During January 69 cases of termite damage were reported to the Bureau of Entomology. The following list gives the number of cases reported from each section: Middle Atlantic, 21; South Atlantic, 16; East Central, 13; West Central, 4; North Central, 1; Lower Mississippi, 13; Pacific Coast, 1.

North Carolina. R. W. Leiby (February 16): Our first report this "spring" of their swarming in Raleigh.

Indiana. J. J. Davis (February 22): Reports of winged termites are now being received, the first report coming on February 3 from Lafayette.

Alabama. J. M. Robinson (February 17): Termites reported in houses at Silverhill, Birmingham, Bay Minette, Cullman, Talladega, Marion, Mobile, and Montgomery.

Mississippi. C. Lyle (February 21): Many requests for information about controlling termites in residences were received from many places over the State during the past three months.

Louisiana. W. E. Hinds (February 21): Termites have been flying on warm days from steam-heated buildings during the past week.

ANTS (Formicidae)

West Virginia. L. M. Peairs (February 23): House ants have remained unusually active on account of mild weather and are reported frequently.

Mississippi. C. Lyle (February 21: Many complaints of annoyance by Solenopsis xyloni McCook have been received during the past few months. Correspondents at Belmont, Eupora, Parchman, Ridgeland, and Okolona indicated that these ants were quite troublesome.

Mississippi. C. Lyle (February 21): Specimens of Prenolepis imparis Say were sent to us from Philadelphia, Neshoba County, on January 23, with the statement that they were troublesome in the kitchen.

Alabama. J. M. Robinson (February 17): Argentine ants (Iridomyrmex humilis Mayr) have been reported in homes at Detroit, Opelika, and Auburn.

Mississippi. C. Lyle (February 21): Argentine ants were received from Edwards, Hinds County, for the first time on January 25. This makes 253 known infestations in Mississippi, of which 56 apparently have been eradicated.

California. E. O. Essig (February 20): Argentine ants in the San Francisco Bay district have been less active this winter owing to unusual cold weather for this area.

EUROPEAN EARWIG (Forficula auricularia L.)

California. A. E. Michelbacher (February 19): The European earwig has shown activity at Berkeley for several weeks. On February 11 a large number of egg clusters were gathered.

CLOVER MITE (Bryobia praetiosa Koch)

Massachusetts. E. P. Felt (February 21): The clover mite was abundant and troublesome in late fall at Wellesley, dwellings being invaded.

Connecticut. E. P. Felt (February 21): The clover mite was abundant and troublesome in late fall at Stamford, dwellings being invaded.

Illinois. W. P. Flint (February 21): About the usual number of reports have been received of invasions of houses by the clover mite.